Least Bittern *(Ixobrycus exilis)*

(5 subspecies; 3 within plan area)

Conservation Concern Category:
High Concern

Population Trend (PT)

I. exilis exilis—unknown (Delany and Scott 2002)

I. exilis pullus—unknown (Delany and Scott 2002)

I. exilis erythromelas—unknown (Delany and Scott 2002)

"populations apparently stable during the period 1966-1989 (BBS) but birds observed on just 62 routes…data too few to assess populations…birdwatchers reported species reduced over much of range and extirpated in some areas…" (Gibbs et al. 1992)

"no known recent change in breeding range…some evidence of increases in northeastern part of its range…weak indications of decreases in wintering populations…" (Kushlan and Hafner 2000)

"The clear perception among many field observers is that the Least Bittern is still declining" (in Canada), "most obviously in some Great Lakes Marshes in Ontario where most of the Canadian population breeds…" (James 1999)

PT FACTOR SCORE=4

Population Size (PS)

I. exilis exilis—128,000 total individuals (Delany and Scott 2002: WCA 2001 (Denver workshop);estimate from BBS 42,700 pairs=128,100 individuals)

I. exilis pullus—unknown (Delany and Scott 2002)

I. exilis erythromelas—unknown (Delany and Scott 2002)

"nesting density estimates: 0.4 calling males/ha (Wisconsin), 0.5 calling males/ha (New York), 1 bird/ha (Colorada), 3 nests/ha (South Carolina), 12 nests/ha (South Carolina), birds/km from airboats (Florida)—0.04 (open grassland), 0.13 (canals), 0.37 (airboat trails)…" (Gibbs et al. 1992)

"…in Mississippi we found our greatest densities of least bitterns to be 1.644/ha (95% CI range: 1.32-2.06)."(S. Rush, pers.comm.)

"Although no accurate population figures are available, the Ontario breeding population may be in the order of 1000 pairs. The other provinces combined probably support fewer than 100 pairs" (Sandilands and Campbell 1987)

"Since that time, there still are not any definite data that would give a clear idea of population size and trend…" (James 1999)

"a recent study from Squaw Creek NWR found that mean home range size for both sexes combined was 90.8 ha +/- 23.6 (Range = 14.2 to 462.7 ha, N = 18) and mean core range for both sexes combined was 18.2 ha +/- 7.2 (Range = 2.02 to 135.2 ha, N=18)…" (Griffin et al. 2005)

PS FACTOR SCORE=2

Threats to Breeding Populations (TB)

"destruction of wetland habitat likely greatest threat…may persist in highly urbanized areas…acid precipitation could potentially reduce food supplies…siltation and insecticides may degrade habitats…high levels of dieldrin detected in eggs…invasion by purple loosestrife may degrade habitats…" (Gibbs et al. 1992)

"in North America, preservation of wetlands >10 ha appears to be its most urgent conservation need…" (Kushlan and Hafner 2000)

"destruction of wetland habitat…has been a major factor in loss of habitat in Canada…" (James 1999)

"… reducing tidal flows to marshes and thus allowing them to 'grow over' can also affect this species' densities." (S. Rush, pers.comm.)

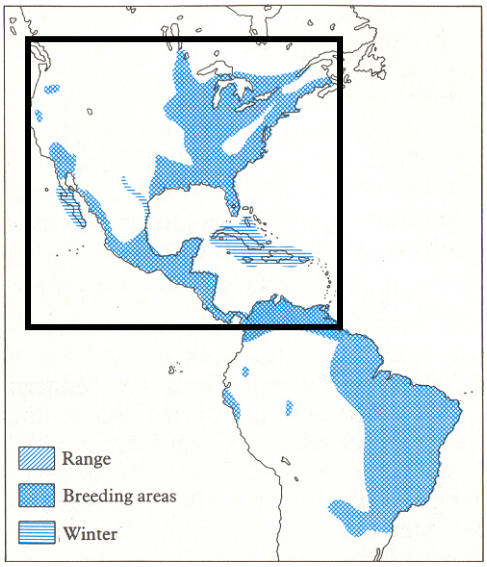
TB FACTOR SCORE=4

Threats to Non-breeding Populations (TN)

"bitterns fly low to ground, collisions with motor vehicles, fences, transmission lines can be a significant mortality factor…" (Gibbs et al. 1992)

TN FACTOR SCORE=4

Global Range (Hancock and Kushlan 1984; inset=plan area range)



Breeding Distribution (BD)

I. exilis exilis—SE Canada & E USA W USA to Central America, Caribbean (Delany and Scott 2002)
I. exilis pullus—Sonora (NW Mexico) (Delany and Scott 2002)
I. exilis erythromelas—E Panama to Guianas SE to Brazil & Paraguay (Delany and Scott 2002)

2,805,600 km^2 (plan area distribution; estimated from range maps)

BD FACTOR SCORE=3

Non-breeding Distribution (ND)

I. exilis exilis—S USA to N South America (Delany and Scott 2002)
I. exilis pullus—Sonora (NW Mexico) (Delany and Scott 2002)
I. exilis erythromelas—E Panama to Guianas SE to Brazil & Paraguay (Delany and Scott 2002)

3,264,600 km^2 (plan area distribution; estimated from range maps)

ND FACTOR SCORE=4

Literature Cited:

Delany, S. and S. Scott. 2002. *Waterbird Population Estimates – Third Edition*. *Wetlands International Global Series No. 12*, Wageningen, The Netherlands. Pp: 51

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Griffin, A. et al. 2005. Spatial Ecology of Breeding Least Bitterns on Squaw Creek National Wildlife Refuge, unpublished ms.

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James, Ross D. 1999. COSEWIC Status report on Least Bittern, *Ixobrychus exilis*. Committee on the Status of Endangered Wildlife in Canada. 8 + iii pp.

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